

# Indifference vs. Universality of Mental Representation in Ockham, Buridan and Aquinas

## Singular and universal representations

What makes a representation universal as opposed to singular? Plato would seem to have an easy answer: a singular representation is one that represents a singular entity, such as Socrates, and a universal representation is one that represents a universal entity, that is a Form, such as the Form of Humanity. However, according to the prevailing medieval consensus, universal entities cannot exist in the way Plato conceived of them, as Aristotle sufficiently demonstrated. Therefore, this sort of answer would certainly not satisfy a medieval philosopher without further ado.

We should also notice that on this conception, the difference would not be in *the mode of representation* of the two types of representation, but rather in *the represented objects*. So, the difference would primarily be an *ontological difference* between the types *of represented objects*, and only secondarily a difference in the representations, depending on what sort of object they represent. But then, *the mode of representation* of these representations might actually be the *same*; in fact, on this conception both the name 'Socrates' and the name 'humanity' would justly be regarded as *semantically proper names*, but one would be the name of a singular and the other of a universal entity.

Indeed, one may say that the *semantic situation* would be the same even with a "moderate realist" ontology, the kind espoused by Duns Scotus or Walter Burley, where a universal term would still be like a singular name of a universal entity, although of a universal entity that has "a less than numerical unity" and a corresponding mode of being, preceding, and apart from, any activity of the intellect. At any rate, it was precisely this kind of ontology that William Ockham vehemently rejected in his *Ordinatio*.

#### Ockham on singular vs. universal cognitive acts

But quite apart from the ontological issue, we may say that genuine *semantic* universality of a representation is given only when the representation itself, on account of its representative function, is related to many things and not to one (whether or not that one thing is truly one or just "so-so one" in the way Scotus imagined). This is precisely Ockham's *mature position* in his *Summa Logicae*, according to which a universal concept is "an intention of the soul itself, apt to be predicated of several things, so that on account of the fact that it is apt to be predicated of several things, [standing] not for itself, but for those several things, it is called universal; however, on account of the fact that it is one form, really existing in the intellect, it is called singular." Therefore, Ockham's mature position accords true semantic universality to a concept, which in and of itself is a singular entity, representing only singular entities, but in a *semantically* truly universal manner.

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<sup>&</sup>lt;sup>1</sup> As John of Salisbury writes: "...everybody follows Aristotle" (...omnes Aristotelem profitentur). Metalogicon, bk. 2, c. 19, 877a18, Clarendon Press: Oxford, 1929.

<sup>&</sup>lt;sup>2</sup> "uniuersale est una intentio singularis ipsius animae, nata praedicari de pluribus, ita quod propter hoc quod est nata praedicari de pluribus, non pro se sed pro illis pluribus, ipsa dicitur uniuersalis; propter hoc autem quod est una forma, exsistens realiter in intellectu, dicitur singularis." SL I, 14.

Indeed, the same can be said of Ockham's earlier position, his *fictum* theory, except in an ontologically different setup. To see this, consider the following well-known passage from Ockham's *Ordinatio*:

One can plausibly say that a universal is not a real thing inherent in a subject [habens esse subjectivum, whether in the soul or outside the soul, but it exists only as an object of the soul [habet esse objectivum in anima]. And it is a sort of mental image [fictum] that in its existence as an object of the soul [in esse objectivo] is like an external thing in its real existence [in esse subjectivo]. And I mean this in the following sense: The intellect seeing something outside the soul makes up a similar one in the mind in such a way that if it had the power to make it, just as it has the power to make it up, then it would produce a thing in real existence that is numerically distinct from the first one; and this would be analogous to the activity of a craftsman. For similarly to the case of a builder who, upon seeing a house or a building outside, makes up a similar one in his soul, and later builds a similar one outside that is only numerically different from the first, in the case under consideration, the figment [fictum] in the mind taken from the sight of the external thing would serve as a certain exemplar; for in this way, just as the house imagined is an exemplar for the builder, so that figment would be an exemplar for the person who forms it, if he had the power to produce it in reality. And it can be called a universal, for it is an exemplar and it relates indifferently to all external singulars. And because of this similarity in its existence as an object [of the intellect] [in esse objectivo], it can refer to [supponere pro] the things that have a similar existence outside the intellect. And so, in this way a universal does not come to be by generation, but by abstraction, which is nothing but a sort of imagination [fictio].<sup>3</sup>

Given this description of the semantic function of a *fictum*, and that of a universal mental act on Ockham's mature position, it is easy to see why Ockham came to view *ficta* as expendable: since the same type of semantic function can be attributed to a mental act as to a *fictum*, there is no need to posit the ontologically dubious and semantically unnecessary *ficta*, which therefore are easy prey to Ockham's Razor.

However, precisely because Ockham treats both *ficta* and mental acts as having the same semantic function, whatever he says about the semantic function of one applies to the other, despite their ontological differences. Based on the foregoing description, a *fictum* is pretty much like the information obtained about a singular thing, which, serving as a principle of action, could produce a numerically distinct, but formally identical singular thing, exactly like the information recorded on a CD track about a song sung in a recording studio, which then can be replayed indefinitely many times. Indeed, as we could just see, the *fictum*, on account of its similarity to the objects from which it is obtained and which it can produce, can *supposit for*, i.e., truly apply to all these singulars, and this is why Ockham would regard it as a truly universal representation. Indeed, *mutatis mutandis* in the ontological description, semantically the same would apply to his universally representing mental acts: these mental acts would simply encode non-distinctive information obtained from singulars of a given kind, indifferently representing them all, and thereby universally applying to all.

Nevertheless, we may say that there are some important differences between the information encoded by a CD track and a truly universal mental representation. In the first place, the recording of a particular performance would certainly be a singular representation of that singular performance, despite the fact that the same record can produce an indefinite number of formally identical replays. Indeed, just because the band could produce another, virtually identical performance, indistinguishable from the first, the record of the first could not count as a

<sup>&</sup>lt;sup>3</sup> Ockham, *Ordinatio*, d. 2, q. 8, pp. 271-4

representation of the second, even if the replay of the record, and the second performance itself would not be distinguishable. Thus, despite all their similarities, the record of the first performance would not be a universal representation of the song that can be realized in various performances; it would be just the singular representation of the particular performance it recorded, and possibly a principle of reproducing that singular performance in several singular copies. A universal representation of the song itself would rather be the music score abstracting from all individuating conditions of any particular performance.

Ockham, however, would have to insist that the mere indifference of the recording to the many possible singular performances or replays to which it is indifferently related would already constitute its universality, in the same way he insists that as far as its information content is concerned, just *any* cognitive act is indifferent to several singulars, and so it is universal. This is precisely the consideration that leads to the problem of whether there are *any truly singular representations* at all. A piece of reasoning leading to this problem was quite poignantly formulated by Ockham in his *Quodlibetal Questions*. The argument concerns an act of intuitive cognition, i.e., the sort of cognition we have in the direct perception of an object. Since this is the sort of cognitive act that appears the most to be singular, and thus "proper" to that particular object, if this turns out *not* to be singular, then it seems that, despite appearances to the contrary, we have no genuine singular acts of cognition after all. The argument proceeds as follows:

... it does not seem that an intuitive cognition is a proper cognition, since any given intuitive cognition is equally a likeness of one singular thing and of another exactly similar thing, and it equally represents both the one and the other. Therefore, it does not seem to be more a cognition of the one than a cognition of the other. <sup>5</sup>

Because of its importance in nominalist cognitive psychology, I will refer to this piece of reasoning as the argument from the indifference of sensory representation, or rather, for short, the argument from indifference. To be sure, the argument in and of itself would not be earth-

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<sup>&</sup>lt;sup>4</sup> For excellent analyses of Ockham's notion of intuitive, as opposed to abstractive, cognition, see Karger, E. "Ockham's Misunderstood Doctrine of Intuitive and Abstractive Cognition" in Spade, P. (ed.), *The Cambridge Companion to William of Ockham*, Cambridge University Press 1999, 204–226, and Tachau, K. *Vision and Certitude in the Age of Ockham: Optics, Epistemology and the Foundations of Semantics 1250–1345*, Studien und Texte zur Geistesgeschichte des Mittelalters, Band 22. E. J. Brill 1988. As we shall see, however, despite the fact that he also considers the issue in detail, along apparently rather similar lines, Buridan is not particularly fond of Ockham's (and Scotus's) notion and/or terminology.

<sup>&</sup>lt;sup>5</sup> See William of Ockham. *Quodlibeta septem*, in *Opera Theologica* IX, ed. J.C. Wey, St. Bonaventure, NY, 1980 (henceforth: QDL) I, q. 13, p. 74. Translation: William of Ockham. *Quodlibetal Questions*, vols. I and II, trans. A. J. Freddoso and F. E. Kelly, New Haven: Yale University Press, 1991, p. 65.

<sup>&</sup>lt;sup>6</sup> As Giorgio Pini has kindly pointed out to me, this argument is not original with Ockham, but can be found in Scotus, in the following passage: "... a single action of a sense has an object that is one in virtue of some real unity; but not numerical unity. Therefore, there is some real unity other than numerical unity. Proof of the minor premise: a power that cognizes an object in this way (namely, insofar as it is one by *this* unity), cognizes it as distinct from anything else that is not one [with this object] by *this* unity. However, a sense does not cognize its object insofar as it is distinct from anything that is not one [with it] by numerical unity. And this is clear, because a sense does not distinguish *this* ray of sunlight to be numerically different from *that* other ray of sunlight, although they are diverse on account of the movement of the sun. If all common sensibles were to be excluded [from our consideration], such as the diversity of location or position, and if we assumed two quantities to exist in the same place by divine power, which however were altogether similar and equal in whiteness, then sight would not discern that there are two white things there; however, if it cognized one of them insofar as it is numerically one, then it would cognize it insofar as it is a unit that is distinct [from the other] by numerical unity." *Ordinatio* II, d. 3, p. 1, q. 1, nn. 20-21 (ed. Vat. VII,

shattering. However, its real importance from our point of view lies in the fact that Ockham's reply to it *does not* reject the idea that the *representative content* of an intuitive act of cognition (i.e., the information content that a thing has to "match" in order to count as an object of this act) is indifferent to several singulars. Instead, it argues that the singularity of such an act has to be accounted for *not* in terms of its distinctive *content*, but rather in terms of the *actual causal connection* between the object and the cognitive act. Thus, as far as Ockham is concerned, the argument establishes that even an intuitive act of cognition, the sort of cognition that is most likely to be genuinely singular, *in its representative content is inherently indifferent* to several singulars:

I reply that an intuitive cognition is a proper cognition of a singular thing not because of its greater likeness to the one thing than to the other, but because it is naturally caused by the one thing and not by the other, and it is not able to be caused by the other.<sup>7</sup>

However, this solution immediately raises a problem about the possibility of supernatural causation of the same act of cognition, which Ockham handles in the following way:

You might object that it can be caused by God [acting] alone. This is true, but such a vision is always apt by nature to be caused by the one created object and not by the other; and if it is caused naturally, then it is caused by the one and not by the other, and is not able to be caused by the other. Hence, it is not because of a likeness that an intuitive cognition, rather than a first abstractive cognition, is called a proper cognition of a singular thing. Rather, it is only because of causality; nor can any other reason be given.

So, the gist of the argument from indifference seems to be that, apparently, the content of any simple act of cognition can never be distinctive enough to yield a truly singular representation. Adopting an example of Nicholas of Oresme, 9 if we take a picture of one of two eggs that are exactly alike, it is certainly true that just by looking at the picture we can never tell which egg is pictured in it. Indeed, by a little tweaking of the example, we can illustrate Ockham's solution in the following way. Suppose we picture one of the eggs on a TV screen by means of a video camera. By looking at the picture on the screen we cannot tell which egg is pictured there. But looking at the entire setup, involving the light reflected from the surface of this egg, captured, encoded, and transmitted to the screen by the camera, we can tell that the picture on the screen is of this egg and cannot be of the other, because of the actual causal chain leading from this egg and not from the other to the picture on the screen. On the other hand, if we cut off this actual causal chain by removing the egg from the view of the camera, and we freeze the last frame before the removal of the egg, then the picture without the actual causal link could be the picture of either of the two eggs. Since the information content of the picture does not distinguish one from the other, and there is no actual causal link to distinguish the egg pictured there, the picture now has become a universal representation, indifferently representing the eggs equally similar to it. So, the first abstractive cognition resulting from the first intuitive cognition of the thing is like

pp. 399-400). For an intriguing discussion of a closely related argument in a contemporary philosophical context, see Sainsbury, R. M., *Reference without Referents*, Oxford: Oxford University Press, 2005, pp. 246-254, where the author also provides further important references. But I cannot pursue the comparison with the contemporary discussion here.

<sup>&</sup>lt;sup>7</sup> See *Ibid.*, p. 76; transl., p. 66.

<sup>&</sup>lt;sup>8</sup> Ibid.

<sup>&</sup>lt;sup>9</sup> Nicholas Oresme, *Expositio et Quaestiones in Aristotelis De anima*, III, q. 14, p. 421.

the frozen image of the egg: even if it was generated by this egg, since it is no longer causally linked to it, and its information content does not distinctively represent this egg, it is no longer a singular representation of this egg, but rather an indifferent, universal representation of this egg and all others sufficiently similar to it.

So, here we have Ockham's universal representations. Whether they are freeze-frames on a TV screen, CD tracks recording a song, or mental acts capturing some non-distinctive information about a singular, or the information content of such a mental act, like a *fictum*, they all represent individuals of the same kind indifferently, and so, according to Ockham, universally, precisely on account of their lack of distinctive information that would distinguish one singular from the other. Since a *fictum* is just like the information content of a non-distinctive image, like a photo of an egg that might just as well be that of another, there does not really seem to be any need to talk about the information content of the image to account for its representative function; the image as it were "speaks for itself". No matter which egg it came from, it represents all indifferently. Therefore, the image itself is universal; there is no need to go, in the old Thomistic-Aristotelian fashion, into the obscure discussion about how the form of the original egg is received by the picture without its matter and then without its individuating conditions in the intellect, whatever those individuating conditions are. And so, we can also avoid the dubious speculations about the egg-hood itself which exists individualized in the eggs but universally as an object of the mind, or indeed, perhaps existing universally, having its less-than-numerical unity without any activity of the mind, as Scotus imagined; the egg-image existing in its singularity simply represents all eggs on account of its indifference. Indeed, since it does not represent them with regard to their distinct egg-hood or with regard to anything else, it represents them absolutely. Hence, this conception of mental representation can beautifully support Ockham's logical conception of absolute terms, directly anchoring our language in the primary building blocks of reality.

#### **Problems in Ockhamist psychology**

However, despite all its appeal for its simplicity, and its ability to undergird Ockham's nominalist semantics, Ockham's mental act theory faces serious challenges as a theory of cognitive psychology.

In the first place, it does not seem to tell us a credible story about *concept-acquisition*: how do we get from the snapshot of an egg to the concept of an egg, as opposed to the concept of an egg-shaped piece of marble, whose snapshot may be exactly like that of an egg? The egg-snapshot is not *merely* indifferent; it seems to be *too* indifferent, insofar as it is indifferent to both eggs and egg-shaped pieces of marble.

Furthermore, on this conception just one indifferent image of one singular would be a universal representation of the entire species. But how can we say that a single encounter with a single member of a species would give us the *essential information* about all individuals on account of which they are truly and genuinely co-specific?

Again, how can this information be regarded as generalizable to all, including unobserved, members of the same species? The superficial similarity of a chicken-egg and, say, a platypus egg, would certainly not provide a sufficient ground for valid generalizations.

Another, not unrelated, problem has to do with Ockham's tendency to sweep under the rug questions about the information content of mental acts. What is precisely the information they

carry about their objects? What do they represent their objects as? Questions of this sort contribute to what I would refer to as the problem of aspectuality of mental acts. The problem is with our natural tendency to look at concepts as carrying some information about their objects, hence representing their objects as things that have the property matching that information; i.e., as representing their objects with respect to those properties. However, this seems to clash with the kind of representative function Ockham attributes to absolute concepts, which are not supposed to represent their objects in respect of anything, but absolutely. According to Calvin Normore's suggestion, therefore, Ockham's concepts would have to be regarded as "bare concepts", bereft of descriptive content or any sort of aspectuality, simply directly and absolutely designating the individuals they represent. But it is hard to imagine how such content-free concepts can function in the life of an organism, where it seems they would primarily have the function of providing vital information for the organism about the objects of its narrower and broader environment. And it is also hard to imagine the psychological mechanisms that allow the formation of such concepts from the input of the senses.

Claude Panaccio, therefore, has another suggestion: absolute concepts are not content-free. Their content is basically the sensory information one can gain from the senses; but that content is not the condition of the true applicability of the concept: the concept signifies not necessarily what it appears to represent to the possessor of the concept; rather it represents primarily the individual first encountered in experience, on account of its causal impact, and all other co-specific individuals precisely on account of their co-specificity. Thus, the objective conditions of applicability of the concept and the subjective aspectuality of the same on this interpretation are radically divergent. My concept of an egg does not apply to an egg on account of the information content of my concept (because that content may just as well apply to a marble-egg), but rather on account of the fact that it is either the first egg I encounter or one that is co-specific with the first. This is an intriguing suggestion, though it also has some serious problems to contend with. But whether motivated by those or not, Buridan certainly did not take this tack. So, let me now turn to the points where I think Buridan importantly departs from Ockham on either suggested interpretation, and gets surprisingly close to Aquinas, even at the expense of endangering the consistency of his own doctrine.

### **Buridan's departure from Ockham**

Such an important point of departure in my view is the way Buridan accounts for the fact that a mental concept represents unobserved individuals in the following passage, in question 8 of his *Questions on the Soul*:

... if there are any things similar to each other, whatever is a similarity for one of them, is, in the respect in which the two are similar to each other, a similarity for each of them. For example, if A, B, and C are similar with respect to whiteness because they are white, just as D is similar to A [in whiteness], it must also be similar to both B and C [in whiteness]. Therefore, it follows from the fact that representation occurs by means of likeness that that which was representative of one thing will be indifferently representative of others ... From this it is finally inferred that whenever the species (and likeness) of Socrates has existed in the intellect and has been abstracted from the species of external things, it will no more be a representation of Socrates than of Plato and other men; nor does the intellect understand Socrates by it any more than other men. On the contrary, the intellect understands all men by it indifferently, in a single concept, namely, the concept from which the name `man' is taken. And this is to understand universally.

On this account, what allows for the universal representation of unobserved singulars is the transitivity of similarity. The concept I obtain from the singulars observed is similar to these observed singulars in exactly the same respect in which these singulars are similar to each other and to any other singular of the same kind. Thus, since my concept C resembles the observed individuals A and B in respect R (whatever that is) in which they resemble each other, and in which they also resemble the unobserved individual D, my concept C will also resemble the unobserved individual D in the same respect. To put it succinctly: since C is similar to A in R, and A is similar to D in R; therefore, C is also similar to D in R.

This is a very plausible account, but it is definitely not Ockham's on either Normore's or on Panaccio's construal. However, this account seems to be in conflict also with Buridan's own account of the representative function of absolute concepts. In fact, it is much more like Aquinas' abstractionist account. Let me try to clarify.

In my discussion of Ockham's *fictum* theory, I have interpreted the notion of similarity between concept and object in terms of the information the concept encodes about the object in a natural system of encoding, resulting from natural causality. And, in fact, I have no idea what else that sort of similarity can mean. But then, a concept resembling an object has to represent its object in respect of that information which it carries about the object, and which constitutes the concept's descriptive content, providing its "aspectuality". However, Ockham's absolute concepts on Panaccio's interpretation would be similar to their objects not in that respect in which the objects essentially resemble each other, but with respect to their phenomenal features. On Normore's interpretation, on the other hand, they would be similar not in any respect at all, which is a dark mystery to me, if concepts are supposed to encode and carry some information about their objects, constituting their similarity to those objects in respect of that information. In any case, even if Normore's interpretation is viable, it is clear that on that interpretation concepts are not similar to their objects in that respect in which they are similar to each other, as Buridan's account seems to require.

But whatever is the case with Buridan's departure from Ockham, it seems to be clear that representing a thing in respect of something is *not* what an absolute concept is supposed to do, both according to Ockham and according to Buridan. Thus, the aspectuality accorded to absolute concepts by Buridan's account seems to be in conflict with Buridan's own doctrine of the representative function of these concepts.

## Aquinas's solution

However, on Aquinas's account of concept acquisition and his corresponding semantic views, this aspectuality is not a problem at all. For him, *all* intellectual concepts are aspectual, representing their ultimate objects, the individuals of a given kind, precisely in respect of the information content abstracted from observed individuals. But since this information content is abstracted from the individuating conditions along with which it can be found in the sensory experience of these individuals, it equally applies to the unobserved individuals of the same kind. The descriptive content of an essential concept is precisely the essential nature of the individuals belonging to this kind, encoded in the simple concept in a confused manner, awaiting further articulation in a quidditative definition of the kind in question. Thus, for Aquinas, abstraction is not merely the process resulting in a freeze-frame, an indifferent snapshot of the accidental, phenomenal features of an individual, which then resembles other, sufficiently similar

individuals, as it was for Ockham. Indeed, abstraction is not merely the process of a loss of individuating information, as it was for Buridan: for what we lose by abstracting our universal concepts from the rich sensory content of perception in intension and confusion we gain in extension and precision. So, abstraction is not so much a process of *losing* (concrete) information as it is the process of *gaining* essential, validly generalizable information, through grasping the essential nature of individuals from the sensory information amassed in experience; indeed, not only in the experience of a single human person, but in the experience of generations, encoded in and passed down through language.

For although Aquinas does not dwell too much on this point, it seems to be clear that in sharp contrast to post-Cartesian mentality, to him, cognition, getting to know things, scientific inquiry, etc., are in no way a solitary enterprise. I think it is no mere accident that the two salient passages where he discusses induction as the process of acquiring cognition of the first principles of demonstration are at end of his *Commentary on the Posterior Analytics* and at the beginning of his *Commentary on the Metaphysics* of Aristotle (apart from the fact that Aristotle himself mentions the issue at these places, and probably not by accident either – but I leave that issue to Aristotelian scholarship). For in both places, as he is talking about the accumulation of experiences as a pre-condition for induction, it is clear that Aquinas does not mean the accumulation of any single person's individual experiences, but rather the growth of human experience in general, passed down through generations, especially by means of language (indeed, by culture, in its broadest sense), engendering the eventual intellectual intuition of what is essential and what is not to any given kind of thing, that is to say, the abstractive grasp of the essential nature of natural kinds.

But for Aquinas, the grasping of this essential nature is not some magical intuition of a mysterious entity, having its own, less-than-numerical unity, pre-existing any operation of the intellect. Aquinas' down-to-earth cognitive psychology is coupled with an equally down-to-earth ontology, which on the right interpretation should not hurt the sensibilities of the most squeamish nominalist, as for example Domingo Soto, the theologian-philosopher describing himself as "born among nominalists and raised by realists", argued. But precisely what that right interpretation is would lead us into the dangerous minefield called "Thomistic scholarship", which I will avoid entering for now. Here I only wanted to indicate why I think Aquinas' idea is still worth exploring, from a purely philosophical perspective.

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<sup>&</sup>lt;sup>10</sup> Soto, D., *In Porphyrii Isagogen, Aristotelis Categorias, librosque de Demonstratione, Commentaria*, Venice, ex officina Dominici Guarraei, et Io. Baptistae, fratrum, 1587, reprint, Frankfurt: Minerva, 1967, p. 28H.

<sup>&</sup>lt;sup>11</sup> Not that I would generally shy away from this task. See Klima, G., "Contemporary 'Essentialism' vs. Aristotelian Essentialism", in Haldane, J. (ed.): *Mind, Metaphysics, and Value in the Thomistic and Analytic Traditions*, University of Notre Dame Press: Notre Dame, IN, 2002, pp. 175-194.